WE CLAIM AS OUR INVENTION:

1. A method of preparing foam powder from contaminated polymeric foam, the method comprising:

a) comminuting the contaminated foam, thereby preparing a first polymeric foam powder; and

b) quenching the first polymeric foam powder, thereby forming a second polymeric foam powder.

2. The method of claim 1 wherein comminuting comprises comminuting by means of a two-roll mill having a first roll and a second roll.

3. The method of claim 2 wherein said comminuting comprises operating the two-roll mill such that the first roll is operated at a first surface speed while the second roll is operated at a second surface speed which is different than the first surface speed.

4. The method of claim 3 wherein said first surface speed is up to ten times the second surface speed.

5. The method of claim 2 further comprising cooling at least one of the first roll and second roll.

6. The method of claim 2 wherein the first polymeric foam powder comprises particles having a maximum particle size of about 2 mm or less.

7. The method of claim 2 wherein quenching comprises exposing the first foam powder to a gaseous first cooling medium.

8. The method of claim 7 wherein quenching comprises exposing the first foam powder to a gaseous first cooling medium at a contact point between the first roll and the second roll.

9. The method of claim 8 wherein said gaseous first cooling medium is up to 125°C less than the temperature of the first foam powder as it leaves the region between the first roll and the second roll.

10. The method of claim 8 wherein said gaseous first cooling medium is 5°C to 125°C less than the temperature of the first foam powder as it leaves the region between the first roll and the second roll.

11. The method of claim 8 wherein said gaseous first cooling medium is 10°C to 125°C less than the temperature of the first foam powder as it leaves the region between the first roll and the second roll.

12. The method of claim 8 wherein said gaseous first cooling medium is 25°C to 125°C less than the temperature of the first foam powder as it leaves the region between the first roll and the second roll.

13. The method of claim 8 wherein said gaseous first cooling medium is 50°C to 125°C less than the temperature of the first foam powder as it leaves the region between the first roll and the second roll.

14. The method of claim 8 wherein the first gaseous cooling medium is in turbulent flow.

15. The method of claim 14 wherein the first gaseous cooling medium is at a temperature below 115°C prior to the quenching step.

16. The method of claim 15 wherein the contaminant is polyethylene having a softening temperature greater than the temperature of the first gaseous cooling medium.

17. The method of claim 7 wherein the first gaseous cooling medium is cooled to a temperature below ambient.

18. The method of claim 7 wherein the gaseous cooling medium comprises one or more substances selected from the group consisting of gaseous air, nitrogen gas, carbon dioxide gas, mixtures of those gases, any of the aforementioned gases which additionally include droplets or vapor of liquids including water, alcohols, ketones, alkanes, or halogenated solvents.

19. The method of claim 7 additionally comprising screening the second polymeric foam powder by means of a sifter.

20. The method of claim 6 wherein exposing the first foam powder to a first cooling medium comprises:

a) collecting the first polymeric foam powder in a collection chamber; and

b) exposing the first polymeric foam powder to the first cooling medium inside the collection chamber, thereby forming the second polymeric foam powder.

21. The method of claim 20 further comprising conveying the second polymeric foam powder from the chamber to a sifter through a first conduit communicating between the collection chamber and the sifter.

22. The method of claim 21 wherein conveying comprises conveying by means of a gaseous flow.

23. The method of claim 22 wherein the gaseous flow includes the first gaseous cooling medium.

24. The method of claim 22 wherein the gaseous flow includes a second gaseous cooling medium.

25. The method of claim 21 additionally comprising screening the second polymeric foam powder in the sifter and thereby forming:

a) a third polymeric foam powder comprising first foam particles having a predetermined first particle size range and substantially excluding second foam particles having a second particle size range that exceeds the first particle size range; and

b) a fourth polymeric foam powder comprising the second foam particles.

26. The method of claim 25 additionally comprising adding a third gaseous cooling medium to the sifter.

27. The method of claim 25 additionally comprising:

a) conveying the fourth polymeric foam powder to the two-roll mill; and

b) comminuting the fourth polymeric foam powder.

28. The method of claim 27 additionally comprising adding a fourth gaseous cooling medium during conveying of the fourth polymeric foam powder.

29. The method of claim 1 wherein the contaminated polymeric foam is prepared for comminution in said step a) by the steps of :

i) fragmenting foam products comprising: (1) one or more production contaminants and (2) one or more consumer contaminants ; and

ii) removing said consumer contaminants, thereby preparing foam fragments comprising said one or more production contaminants.

30. The method of claim 29 wherein the production contaminants are selected from the group consisting of polymeric foam skins, polymeric sheet, and paper.

31. The method of claim 29 wherein the consumer contaminants are selected from the group consisting of wood, fiber, leather, ferrous metals, non-ferrous metals and glass.

32. The method of claim 1 wherein comminuting comprises comminuting by a roll mill having three or more rolls.

33. The method of claim 1 wherein the contaminated polymeric foam comprises polyurethane foam that is contaminated with one or more contaminants selected from the group consisting of polyurethane foam skins, polymeric sheet, and paper.

34. A polyurethane foam powder prepared by the process of claim 27.

35. The method of claim 1 wherein the contaminated polymeric foam comprises polyurethane foam that is contaminated with polyurethane foam skins.

36. The method of claim 1 wherein the contaminated polymeric foam comprises polyurethane foam that is contaminated with polymeric sheet.

37. The method of claim 1 wherein the contaminated polymeric foam comprises polyurethane foam that is contaminated with paper.

38. The method of claim 25 wherein the contaminated polymeric foam is a polyurethane foam contaminated with one or more contaminants selected from the group consisting of polyurethane foam skins, polymer sheet, and paper.

39. The method of claim 38 wherein the contaminated polymeric foam contains from about 0.1% to about 75% by weight of contaminants .

40. The method of claim 39 wherein the contaminated polymeric foam contains from about 0.5% to about 75% by weight of contaminants.

41. A polymeric foam powder prepared by the process of claim 39.

42. A polymeric foam powder comprising polyurethane foam powder having a first particle size of about 0.005 mm to about 2 mm, prepared by the process of claim 33.

43. A polymeric foam powder consisting essentially of comminuted polyurethane and polyurethane foam skins and having a particle size range between 0.001 mm and about 2 mm, prepared by the process of claim 33.

44. A polymeric foam powder consisting essentially of comminuted polyurethane and polymeric sheeting and having a particle size range between 0.001 mm and about 2 mm, prepared by the process of claim 33.

45. A polymeric foam powder of claim 44 wherein the polymeric sheeting comprises a polymer selected from polyethylene and polypropylene and polystyrene.

46. A polymeric foam powder consisting essentially of comminuted polyurethane and paper and having a particle size range between 0.001 mm and about 2 mm, prepared in accordance with claim 33.

47. A polymeric foam powder consisting essentially of comminuted polyurethane and polyurethane foam skins and having a particle size of about 0.001 to 0.250 mm, prepared in accordance with claim 33.

48. A polymeric foam powder consisting essentially of comminuted polyurethane and polyurethane foam skins and having a particle size of about 0.001 to 0.045 mm, prepared in accordance with claim 33.

49. A polymeric foam powder consisting essentially of comminuted polyurethane and polyurethane foam skins and having a particle size of about 0.001 to 0.020 mm, prepared in accordance with claim 33.

50. A polymeric foam powder consisting essentially of comminuted polyurethane and polymeric sheeting and having a particle size of about 0.001 to 0.250 mm, prepared in accordance with claim 33.

51. A polymeric foam powder consisting essentially of comminuted polyurethane and polymeric sheeting and having a particle size of about 0.001 to 0.045 mm, prepared in accordance with claim 33.

52. A polymeric foam powder consisting essentially of comminuted polyurethane and polymeric sheeting and having a particle size of about 0.001 to 0.020 mm, prepared in accordance with claim 33.

53. A polymeric foam powder of claim 50 wherein the polymeric sheeting comprises a polymer selected from polyethylene and polypropylene and polystyrene.

54. A polymeric foam powder consisting essentially of comminuted polyurethane and paper and having a particle size of about 0.001 to 0.250 mm, prepared in accordance with claim 33.

55. A polymeric foam powder consisting essentially of comminuted polyurethane and paper and having a particle size of about 0.001 to 0.045 mm, prepared in accordance with claim 33.

56. A polymeric foam powder consisting essentially of comminuted polyurethane and paper and having a particle size of about 0.001 to 0.020 mm, prepared in accordance with claim 33.

57. A method of screening a polymeric foam powder by means of a sifter including a screen housing, the method comprising:

a) conveying the polymeric foam powder into a screening assembly positioned inside the housing, wherein the assembly includes: (1) a substantially cylindrical tube including screening material and (2) beater bars rotating within said substantially cylindrical tube ;

b) activating the beater bars to cause the polymeric foam powder to contact the screening material;

c) forming first foam powder particles having a predetermined first particle size range, by collecting the first foam powder particles passing through the screening material; and

d) forming second foam powder particles by collecting the second foam powder particles from within the screening tube.

58. The method of claim 57 wherein collecting the first foam powder particles comprises collecting in a first gaseous flow between the housing and the screening tube and wherein collecting the second foam powder particles comprises collecting in a second gaseous flow passing through the screening tube.

59. The method of claim 57 wherein the first gaseous flow has a velocity between 2,500 fpm and 6,500 fpm between the housing and the screening tube.

60. The method of claim 57 wherein the first gaseous flow has a velocity between 4,000 and 5,500 fpm between the housing and the screening tube.

61. The method of claim 57 wherein the first gaseous flow has a velocity between 4,500 and 5,000 fpm between the housing and the screening tube.

62. The method of claim 58 wherein the second foam powder particles discharge axially from the screening tube.

63. The method of claim 57 additionally comprising shaking the screening material.

64. The method of claim 57 additionally comprising introducing a gaseous cooling medium into the sifter.

65. The method of claim 63 wherein said shaking comprises introducing a pulsed gaseous medium into the sifter.

66. The method of claim 63 wherein said shaking causes an oscillation in said screen at a frequency of about 0.01-1000 Hz.

67. The method of claim 57 wherein the polymeric foam powder comprises polyurethane foam powder.

68. The method of claim 67 wherein the polymeric foam powder comprises polyurethane foam powder that is contaminated with one or more materials selected from the group consisting of polyurethane foam skins, polymer sheeting, and paper.

69. A method of controlling a feed rate of foam pieces to a foam comminution mill having at least two rolls and wherein the mill is adapted for monitoring mill power consumption, the method comprising:

a) monitoring the mill power consumption while comminuting the foam pieces;

b) deriving a signal from the mill power monitoring; and

c) controlling the feed rate by means of the signal.

70. The method of claim 69 additionally comprising a method of feeding foam pieces to the mill, wherein the feeding method is adapted for controlling the feed rate.

71. The method of claim 70 wherein deriving a signal comprises deriving a feedback signal for feedback to the feeding method.

72. The method of claim 69 wherein deriving a signal comprises deriving a signal selected from the group of electrical voltage supplied to the mill, electrical current supplied to the mill, hydraulic pressure, hydraulic flow rate, torque on the rolls, or force on the rolls.

73. The method of claim 72 wherein controlling comprises controlling by means of a proportional-integral-derivative controller.

74. A method of energizing the first and second rolls of a two-roll mill, the method comprising:

a) energizing the first roll, thereby causing rotation of the first roll; and

b) energizing the second roll at a rate lower than the rotation rate of the first roll by rotation of the first roll.

75. The method of claim 74 additionally comprising:

a) reducing the speed of the second roll, thereby generating second roll braking power; and

b) incorporating the braking power in the energizing of the first roll.

76. A method of discharging foam pieces having a predetermined maximum size from a storage facility, the method comprising:

a) discharging the foam pieces through a mechanically activated screen; and

b) receiving the foam pieces that are discharged through the screen on a moving conveying surface having protrusions.

77. The method of claim 76 wherein discharging comprises discharging foam pieces through a mechanically activated screen having a screen aperture size exceeding the predetermined maximum size by at least 2%.

78. The method of claim 76 wherein receiving the foam pieces comprises employing protrusions that are adapted for movement proximal the screen.

79. The method of claim 76 wherein receiving the foam pieces includes protrusion movement at a distance from the screen that is about equal to the screen aperture size.

80. The method of claim 76 wherein the conveying surface is inclined from the screen by an angle ranging from about 0° to about 30°.

81. The method of claim 76 wherein the foam pieces comprise polyurethane foam.

82. A method of conveying polymeric foam pieces comprising depositing an active-hydrogen compound on the polymeric foam pieces.

83. The method of claim 82 wherein the polymeric foam comprises polyurethane foam.

84. The method of claim 83 wherein the active-hydrogen compound is selected from the group consisting of compounds that are capable of reacting with a polyfunctional isocyanate to form urethane linkages.

85. The method of claim 82 wherein depositing comprises adding the active-hydrogen compound during conveying of the polymeric foam pieces.

86. The method of claim 83 wherein the active-hydrogen compound is added in an effective amount less than about 5.0% by weight.

87. A method of substantially removing contaminant materials selected from the group consisting of oil and grease from polymeric foam, the method comprising:

a) comminuting the polymeric foam to prepare polymeric foam powder; and

b) treating the foam powder with a solvent capable of dissolving the contaminant material.

88. The method of claim 87 wherein treating comprises:

a) washing the foam powder in a series of washing steps wherein the solvent and the foam powder proceed in a counter-current direction such that foam powder having a lowest level of contaminant is treated with solvent having a lowest level of contaminant; and

b) removing substantially all solvent from the foam powder.

89. The method of claim 87 wherein the polymeric foam comprises polyurethane foam.

90. The method of claim 87 wherein treating comprises:

a) washing the foam powder in a solvent; and

b) partially removing the solvent from the foam powder.

91. The method of claim 87 wherein the solvent comprises one or more solvents selected from the group consisting of liquid carbon dioxide, alcohols, ketones, acetone, alkanes, halogenated hydrocarbons, methylene chloride, and perchloroethylene.

92. Foam powder produced by the process of claim 91 containing methylene chloride.

93. A method of treating polymeric foam that is contaminated with one or more materials having adhesive properties, the method comprising treating the foam to remove the adhesive properties.

94. The method of claim 93 wherein treating comprises one or more of the treatment methods selected from the group consisting of heating the contaminated foam, subjecting the contaminated foam to microwave radiation, subjecting the contaminated foam to infrared radiation, subjecting the contaminated foam to UV radiation, and solvent washing the contaminated foam.

95. The method of claim 93 wherein the polymeric foam comprises polyurethane foam.

96. A comminuted polyurethane foam powder comprising at least 5% by weight of comminuted flexible polyurethane foam powder and further including one or more production contaminants selected from the group consisting of polyurethane foam skins, polymer sheeting, and paper.

97. The comminuted polyurethane foam powder of claim 96 containing substantially no rigid polyurethane foam.

98. The comminuted polyurethane foam powder of claim 96 containing said contaminants in the range from about 0.1% to about 75% by weight.

99. The comminuted polyurethane foam powder of claim 96 containing said contaminants in the range from about 0.5% to about 75% by weight.

100. The comminuted polyurethane foam powder of claim 96 wherein said comminuted polyurethane foam powder has been comminuted from polyurethane foam having cells with cell walls.

101. The comminuted polyurethane foam powder of claim 100 wherein said comminuted polyurethane foam powder has substantially no remaining cells.

102. The comminuted polyurethane foam powder of claim 96 having a particle size ranging from about 0.001 mm to about 2 mm.

103. The comminuted polyurethane foam powder of claim 96 having a particle size ranging from about 0.001 mm to about 0.25 mm.

104. The comminuted polyurethane foam powder of claim 96 having a particle size ranging from about 0.001 mm to about 0.150 mm.

105. The comminuted polyurethane foam powder of claim 96 having a particle size ranging from about 0.001 mm to about 0.045 mm.

106. The comminuted polyurethane foam powder of claim 96 having a particle size ranging from about 0.001 mm to about 0.020 mm.

107. The comminuted polyurethane foam powder of claim 96 having a particle size ranging from about 0.001 mm to about 0.010 mm.

108. The comminuted polyurethane foam powder of claim 96 wherein the contaminated polymeric foam comprises polyurethane foam that is contaminated with polyurethane foam skins.

109. The comminuted polyurethane foam powder of claim 96 wherein the contaminated polymeric foam comprises polyurethane foam that is contaminated with polymeric sheet.

110. The comminuted polyurethane foam powder of claim 109 wherein the polymeric sheet comprises a polymer selected from polyethylene, polypropylene, and polystyrene.

111. The comminuted polyurethane foam powder of claim 110 wherein the polymeric sheet comprises polyethylene.

112. The comminuted polyurethane foam powder of claim 111 wherein the polymeric sheet comprises polyethylene with a softening point less than about 135°C.

113. The comminuted polyurethane foam powder of claim 96 wherein the contaminated polymeric foam comprises polyurethane foam that is contaminated with paper.

114. The comminuted polyurethane foam powder of claim 96 consisting essentially of comminuted polyurethane and polyurethane foam skins having a size between 0.001 mm and about 2 mm.

115. The comminuted polyurethane foam powder of claim 114 consisting essentially of particles having a size between 0.001 mm and about 0.25 mm.

116. The comminuted polyurethane foam powder of claim 114 consisting essentially of particles having a size between 0.001 mm and about 0.150 mm.

117. The comminuted polyurethane foam powder of claim 114 consisting essentially of particles having a size between 0.001 mm and about 0.045 mm.

118. The comminuted polyurethane foam powder of claim 114 consisting essentially of particles having a size between 0.001 mm and about 0.020 mm.

119. The comminuted polyurethane foam powder of claim 114 consisting essentially of particles having a size between 0.001 mm and about 0.010 mm.

120. The comminuted polyurethane foam powder of claim 96 consisting essentially of comminuted polyurethane and polymeric sheeting and having a particle size between 0.001 mm and about 2 mm.

121. The comminuted polyurethane foam powder of claim 120 consisting essentially of comminuted polyurethane and polymeric sheeting and having a particle size between 0.001 mm and about 0.25 mm.

122. The comminuted polyurethane foam powder of claim 120 consisting essentially of comminuted polyurethane and polymeric sheeting and having a particle size between 0.001 mm and about 0.150 mm.

123. The comminuted polyurethane foam powder of claim 120 consisting essentially of comminuted polyurethane and polymeric sheeting and having a particle size between 0.001 mm and about 0.045 mm.

124. The comminuted polyurethane foam powder of claim 120 consisting essentially of comminuted polyurethane and polymeric sheeting and having a particle size between 0.001 mm and about 0.020 mm.

125. The comminuted polyurethane foam powder of claim 120 consisting essentially of comminuted polyurethane and polymeric sheeting and having a particle size between 0.001 mm and about 0.010 mm.

126. The comminuted polyurethane foam powder of claim 120 wherein the polymeric sheeting comprises a polymer selected from polyethylene and polypropylene and polystyrene.

127. The comminuted polyurethane foam powder of claim 126 wherein the polymeric sheet comprises polyethylene.

128. The comminuted polyurethane foam powder of claim 127 wherein the polymeric sheet comprises polyethylene with a softening point less than about 135°C.

129. The comminuted polyurethane foam powder of claim 96 consisting essentially of comminuted polyurethane and paper and having a particle size between 0.001 mm and about 2 mm.

130. The comminuted polyurethane foam powder of claim 96 consisting essentially of comminuted polyurethane and paper and having a particle size between 0.001 mm and about 0.25 mm.

131. The comminuted polyurethane foam powder of claim 96 consisting essentially of comminuted polyurethane and paper and having a particle size between 0.001 mm and about 0.150 mm.

132. The comminuted polyurethane foam powder of claim 96 consisting essentially of comminuted polyurethane and paper and having a particle size between 0.001 mm and about 0.045 mm.

133. The comminuted polyurethane foam powder of claim 96 consisting essentially of comminuted polyurethane and paper and having a particle size between 0.001 mm and about 0.020 mm.

134. The comminuted polyurethane foam powder of claim 96 consisting essentially of comminuted polyurethane and paper and having a particle size between 0.001 mm and about 0.010 mm.

135. A method of preparing a blend of polyurethane foam powder and liquid active-hydrogen compound comprising:

a) adding the foam powder to the active-hydrogen compound in a CO_2 atmosphere; and

b) mixing the foam powder and active-hydrogen compound in a CO_2 atmosphere.

136. A method of removing entrapped air from a blend of a polyurethane foam powder and active-hydrogen compound by centrifuging in a vacuum environment.

137. A method of comminuting polyurethane foam particles dispersed in active-hydrogen compound comprising subjecting the foam particles to fluid shear forces generated by one or more mechanically activated surfaces.

138. The method of claim 137 wherein the mechanically activated surfaces are selected from the group consisting of roll mill surfaces and rotor/stator surfaces.

139. A polyurethane foam composition comprising:

a) a polyurethane foam including a reaction product of a active-hydrogen compound and a polyfunctional isocyanate; and

b) polyurethane foam powder including one or more contaminants selected from the group of foam powders prepared from polyurethane foam skins, polymer sheeting, and paper.

140. The composition of claim 139 wherein the contaminants range from about 0.1% to about 75% by weight of the polyurethane foam powder.

141. The composition of claim 139 wherein the contaminants range from about 0.5% to about 75% by weight of the polyurethane foam powder.

142. The composition of claim 139 wherein the polyurethane foam powder has a particle size of 2 mm or less.

143. The composition of claim 139 wherein the polyurethane foam powder has a particle size of 0.001 mm to 0.150 mm.

144. The composition of claim 139 wherein the polyurethane foam powder has a particle size of 0.001 mm to 0.045 mm.

145. The composition of claim 139 wherein the polyurethane foam powder has a particle size of 0.001 mm to 0.020 mm.

146. The composition of claim 139 wherein the polyurethane foam powder has a particle size of 0.001 mm to 0.010 mm.

147. The composition of claim 146 having a polyurethane foam powder content ranging from about 3% to about 60% by weight.

148. A polyurethane foam composition comprising:

a) a polyurethane foam including a reaction product of a active-hydrogen compound and a polyfunctional isocyanate; and

b) a first polyurethane foam powder prepared from polyurethane foam having one or more contaminants selected from the group consisting of polyurethane foam skins, polymer sheeting, and paper wherein the first polyurethane foam powder is prepared by a process comprising: (1) comminuting the contaminated foam by means of a two-roll mill, thereby preparing a second polyurethane foam powder, (2) quenching the second polyurethane foam powder, thereby forming a third polymeric foam powder, (3) screening the third polyurethane foam powder, thereby preparing a first polyurethane foam powder having a particle size of about 2 mm or less.

149. A method of preparing a polyurethane foam composition comprising:

a) preparing a liquid blend of a first active-hydrogen compound and polyurethane foam powder including one or more contaminants selected from the group of foam powders prepared from polyurethane foam skins, polymer sheeting, and paper;

b) mixing the liquid blend with polyurethane foam forming compounds comprising a polyfunctional isocyanate, a blowing agent, and a catalyst; and

c) reacting the foam forming compounds to prepare a polyurethane foam by reacting the isocyanate with the first active-hydrogen compound.

150. The method of claim 149 additionally comprising a second hydroxyl compound.

151. A device for discharging foam pieces having a predetermined maximum size, from a storage facility including a bottom discharge, the device comprising:

a) a screen adapted for discharging the foam piece, wherein the screen includes a predetermined aperture that exceeds the maximum size and wherein the screen is adapted for mechanical agitation;

b) a conveying surface adapted for receiving the foam pieces that are discharged from the screen.

152. The device of claim 151 wherein the screen aperture exceeds the maximum size by at least about 2%.

153. The device of claim 151 additionally comprising one or more protrusions mounted on the conveying surface, wherein the one or more protrusions are adapted for: (1) positioning between the screen and the conveying surface and (2) movement proximal the screen such that the protrusions are positioned at a predetermined distance from the screen when the protrusions are proximal the screen.

154. The device of claim 153 wherein the predetermined distance is about equal to the screen aperture.

155. The device of claim 151 wherein the conveying surface that is adapted for receiving the foam pieces is inclined from the screen by an angle ranging from about 0° to about 30°.

156. A device for collecting foam powder from a mill having a first roll including a first cylindrical surface and a second roll including a second cylindrical surface, the device comprising:

a) a first side wall having a first edge, wherein the first edge is adapted for positioning proximal the first cylindrical surface and substantially parallel to the first cylindrical surface,

b) a second side wall having a second edge, wherein the second edge is adapted for positioning proximal the second cylindrical surface and substantially parallel to the second cylindrical surface,

c) a bottom joining the first side wall and the second side wall,

d) a first end wall joining the bottom and the first and second side walls, wherein the first end wall includes a first end wall edge that is adapted for positioning proximal the first and second cylindrical surfaces and substantially perpendicular to the first cylindrical surface,

e) a second end wall opposing the first end wall and joining the bottom and the first and second side walls, wherein the second end wall includes a second end wall edge that is adapted for positioning proximal the first and second cylindrical surfaces and substantially perpendicular to the first cylindrical surface,

f) a gaseous flow inlet; and

g) a gaseous flow outlet.

157. The device of claim 156 additionally comprising at least one scraper blade adapted for positioning proximal a first of the first and second cylindrical surfaces and substantially parallel to the first cylindrical surface.

158. The device of claim 156 additionally comprising an auger positioned inside the chamber for discharging foam powder from the chamber.

159. The device of claim 156 wherein the first and second side wall edges include a material softer than the first and second cylindrical surfaces.